

29<sup>th</sup> International Congress on

# Prevention of Diabetes and Complications

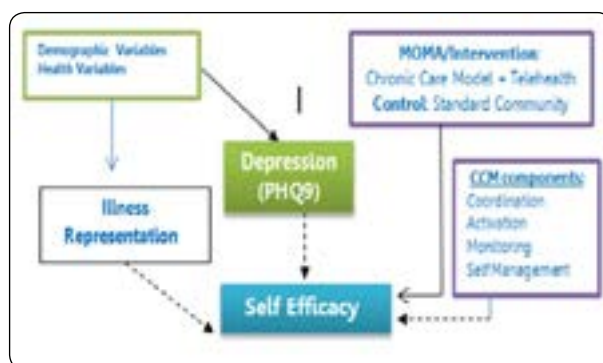
September 27-28, 2018 | Berlin, Germany

## Change in DM self-efficacy for self-management –MTC effect compared to standard community care

**Angela Irony**

Maccabi HealthCare Services, Israel

**Background:** The diabetes epidemic call for integrative solutions to address this challenge. Designated interventions are needed in order to prevent or delay diabetes complications. Maccabi Telecare Center (MTC) is a multi-disciplinary service providing a remote treatment solution to 6,000 members who suffer from chronic illness. Proactive monitoring by MTC's multi-disciplinary staff is based on the chronic care model (CCM) empowering patients to self-management through self-efficacy. Aim: To examine the association between MTC's treatment setting (CCM + telemedicine) and patients' DM self-efficacy (DMSE) and other health outcomes compared with the DMSE of patients receiving standard community care. Method: A large-scale comparative prospective study with stratified sampling and repeat measures. Study population include all HMO members with diabetes type 2, with HbA1c > 8%. Patients who were recruited to MTC comprised the intervention group. Patients matched by demographic and clinical variables composed the control group. In the 8-9 month intervention period patients were trained and empowered in self-management. Patients in the control group received standard community care. At baseline, all participants completed DMSE Scale; IPQ-R (illness representation); PHQ (depression) and SF-12 (QoL) at baseline, 3-4 months and 8-9 months. Results: 832 patients - 433 (intervention) and 399 (control) – aged 59 ( $\pm 11.3$ ), 8.9 ( $\pm 5.5$ ) years of diabetes duration and HbA1c of 10.1 at baseline ( $\pm 1.7$ ). Participation in the intervention group was related to higher DMSE along the study period. At baseline, DMSE in both groups was identical ( $p = NS$ ), yet after 3-4 months and after 8-9 months DMSE was higher in the intervention group ( $p < .001$ ). Second, over the study period, compliance increased in the intervention group and declined in the control group ( $p < .05$ ). Hb1Ac values declined in both groups although the decline was greater in the intervention group ( $p < .001$ ). No differences were found in QoL and depression levels between the study groups. Illness representation affected patients' QoL and mood, independent of study group. Conclusions: This study demonstrates MTC impact on creating a cognitive-behavioral-clinical change among diabetes patients. Thus, a short-term intervention designed to achieve change in self-management is sufficient to improve health-related measures and delay diabetes complications.



### Recent Publications

1. Porath A, Irony A, Segal Borobick A, Nasser S, Malachi A, Fund N, Kaufaman G. Maccabi proactive Telecare Center for chronic conditions - the care of frail elderly patients. *Isr J Health Policy Res* 2017; 6:68.
2. Aung, E., Donald, M., Williams, G.M., Coll, J.R., Doi, S.A. (2015). Joint influence of Patient-Assessed Chronic Illness Care and patient activation on glycaemic control in type 2 diabetes. *International Journal of Quality Health Care*, 27(2), 117-24.
3. Fitzner, K.K., Heckinger, E., Tulas, K.M., Specker, J., McKoy, J. (2014). Telehealth technologies: changing the way we deliver efficacious and cost-effective diabetes self-management education. *Journal of Health Care for the Poor and Underserved*, 25(4), 1853-97.

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4. Greenwood, D.A., Young, H.M., Quinn, C.C. (2014). Telehealth Remote Monitoring Systematic Review: Structured Self-monitoring of Blood Glucose and Impact on A1C. *Journal of Diabetes Science Technologies*, 21;8(2), 378-389.
5. Jalil, S., Myers, T., Atkinson, I. (2015). A meta-synthesis of behavioral outcomes from telemedicine clinical trials for type 2 diabetes and the Clinical User-Experience Evaluation (CUE). *Journal of Medical System*, 39(3), 28.

## **Biography**

Angela Irony, RN, Ph.D., is the Chief Nursing and Medical Centers Officer at Maccabi HealthCare Services, the second largest HMO in Israel. At her prior position as the director of the telehealth centers she led the creation and operation of the on-line platform for remote chronic care. She represented Maccabi's telehealth experience in the World Economic Forum in New York in September 2017. She is a guest lecturer in universities and colleges.

irony\_an@mac.org.il

## **Notes:**